

REMARKS

Entry of the foregoing, reexamination, and reconsideration of the present application, as proposed to be amended, pursuant to and consistent with 37 C.F.R. § 1.116, are respectfully requested in light of the following remarks.

Claims 1, 4-21 and 23 are pending in the present application. Claims 5-21 stand withdrawn from further consideration. Claims 2-3 and 22 have been cancelled, without prejudice or disclaimer. Claim 22 has been cancelled and Claims 6, 7, 9, 10, 15 and 20 have been proposed to be amended to simplify matters upon rejoinder. Applicant reserves the right to pursue cancelled subject matter in a divisional or other continuing application.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 1, 4 and 23 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant requests entry of the foregoing amendments and withdrawal of the rejections under 35 U.S.C. §112, second paragraph and allowance of Claims 1, 4 and 23 for the reasons set forth below. Further, applicant requests rejoinder of the withdrawn claims, their examination on the merits and their allowance as well.

Claim 1 has been considered vague and unclear as to what precisely is included and what is not. Claim 1 is proposed to be amended hereinabove to resolve any ambiguities. As the undersigned explained to the Examiner in a telephone interview on November 16, 2006, the courtesy of which is gratefully acknowledged, the only compounds claimed in Claim 1 are those compounds of formula (I) which fall within the definitions of parts (i), (ii), (iii) and (iv) of Claim 1. In the case of (i) and (ii), small groups of compounds are encompassed by the language, while in the case of (iii) and (iv) only a single compound is in each. In groups

(i) and (ii), those parts of the definitions which were not narrower than the general definitions which precede (i) and (ii) were not defined again because they did not need to be restricted to a part of the broader definition.

Thus, the previous language of (i), (ii), (iii) and (iv) served to further limit the general definitions which preceded them and where no definition of a particular structural variable was specified in one of these parts, the preceding general definition of that structural variable was applicable. Such is believed to be the usual style used in claim drafting and in describing preferred subgenera in the specification; normally, one does not repeat definitions of substituents in defining subgenera unless those definitions of substituents are narrower than the preceding broad definitions. This is the case for example in paragraph [0016] of the specification and in original Claim 2, which parallel part (i) of Claim 1. Since original Claim 2 depended upon original Claim 1, obviously the terms not defined in Claim 2 had the definitions specified in Claim 1. However, the number of instances in which limitations need to be placed on particular combinations of structural variables has caused the language to be deemed confusing.

To remedy this situation, applicant proposes to amend Claim 1 to remove the general definitions and provisos which precede or previously preceded part (i) and to instead place the relevant portions of those definitions in the appropriate sections of parts (i) and (ii). Claim 1 as proposed to be amended now is clearly directed to a compound of formula (I) selected from the group consisting of (i) , (ii), (iii) and (iv).

In part (i) of Claim 1, it continues to be required that $n = m = 0$; and that R_1 , R_2 and R_3 are each C_1 - C_4 alkyl, or R_3 is H and R, and R_2 together are a C_5 - C_8 ring optionally substituted with 1 or 2 C_1 - C_4 alkyl; therefore, the "missing" definitions are of R_4 and R_5 . However, because both n and m must be zero, the portions bearing R_4 and R_5 drop out of the

structure and it is not necessary to define them. Moreover, with respect to the proviso that "when $n = 1$ and R_4 is hydrogen, then n is equal to 0" which was deleted in the previous amendment, such a proviso is not needed in part (i) because the value of n must be 0, it cannot be 1 under any circumstances. Further, the proviso that when R_1 and R_2 together form cycloalkyl, then $n + m$ are other than 2 is not needed here because the compounds excluded by that proviso are already excluded by the fact that $n = m = 0$ and thus $n + m = 0$ (which is of course other than 2). Essentially, then, part (i) of Claim 1 as proposed to be amended is of the same scope as original Claim 2 and is worded as Claim 2 would have been if it had been rewritten in independent form.

In part (ii) of Claim 1, it continues to be required first that $n = 1$ and R_4 is C_1 - C_4 alkyl, or $m = 1$ and R_5 is C_1 - C_4 alkyl, and secondly that R_1 and R_2 are each C_1 - C_4 alkyl. Setting $n=1$, R_4 as C_1 - C_4 alkyl and R_1 and R_2 each as C_1 - C_4 alkyl leaves the definition of m , R_3 and R_5 to take their preceding general definitions, that is, R_3 is hydrogen or C_1 - C_4 alkyl and R_5 is hydrogen or C_1 - C_4 alkyl; note that since n is 1 and R_4 is already set at C_1 - C_4 alkyl, the original proviso (that when $n = 1$ and $R_4 = \text{hydrogen}$, then $n = 0$) is not needed because R_4 cannot be hydrogen. Further, when the values are set at $m = 1$, $R_5 = C_1$ - C_4 alkyl, and R_1 and R_2 are each C_1 - C_4 alkyl in part (ii), then n , R_3 and R_4 take their previous definitions, with n being 0 or 1, R_3 being H or C_1 - C_4 alkyl and R_4 being C_1 - C_4 alkyl; note that again the original proviso is not needed because R_4 is not hydrogen. Furthermore, the proviso about when R_1 and R_2 together form a cycloalkyl ring need not be stated here because in part (ii) R_1 and R_2 are each C_1 - C_4 alkyl; they cannot be cycloalkyl. Essentially, part (ii) of Claim 1 as proposed to be amended corresponds to original Claim 3 and is worded as Claim 3 would have been if it had been rewritten in independent form.

In part (iii) of Claim 1, a single compound is claimed. This is the specific compound (1) which falls within formula (I) wherein R has formula (II) in which n is 1, m is 0, R₄ is H, and each of R₁, R₂ and R₃ is CH₃. (Note that because m is set at 0, the portion bearing R₅ drops out). Alternatively, compound (1) has formula (I) in which R is (II) wherein n is 0, m is 1, R₅ is H and each of R₁, R₂ and R₃ is CH₃ (In this instance, because n is set at 0, the portion bearing R₄ drops out). This specific compound was within the scope of original Claim 1, as the structural values are all within the original definitions and are not contrary to the original provisos; this compound was moreover specifically described in the application as filed, as noted in applicant's previous response.

Parts (i), (ii), (iii) and (iv) are intended to be mutually exclusive; thus, compound (1) is not encompassed by part (i) because n and m are not simultaneously 0 in compound (1); also compound (1) is not encompassed by part (ii) because, in compound (1) when n is 1, R₄ is not alkyl, and when m is 1, R₅ is not alkyl in compound (1). Likewise, it is not encompassed by part (iv), which is limited to a different specific compound.

In part (iv) of Claim 1, a single compound again is claimed, namely compound (3). This is a compound of formula (I) wherein R has formula (II) in which n is 1, m is 0, R₁ and R₂ together form cyclohexyl, R₃ is H and R₄ is H. (Note that because m is set at 0, the portion bearing R₅ drops out). Alternatively, compound (3) can be considered to be a compound of formula (I) wherein R is (II) in which m is 1, n is 0, R₁ and R₂ together form cyclohexyl, R₃ is H and R₅ is H. (Note that because n is set at 0, the portion bearing R₄ drops out). This specific compound was within the scope of original Claim 1, as all of the structural values are within the original definitions and are not contrary to the original provisos. This compound was moreover specifically described in the application as filed.

As noted above, parts (i), (ii), (iii) and (iv) are intended to be mutually exclusive; thus compound (3) is not encompassed by part (i) because n and m in formula (3) are not simultaneously 0; compound (3) is not encompassed by part (ii) because when $n = 1$, R_4 is H in compound (3) rather than alkyl, and when $m = 1$, R_5 is H in compound (3) rather than alkyl. And of course parts (iii) and (iv) are mutually exclusive because they are drawn to different specific compounds.

The Examiner considers Claim 4 as an improper claim, indicating that it fails to further limit Claim 1. Applicant believes that the Examiner's position is lacking basis. Claim 4 is drawn to one of the five specific compounds (1), (2), (3), (4) and (5). Species (1) is specifically claimed in part (iii) of Claim 1; it is not encompassed by the definitions found in parts (i) and (ii). The Examiner is looking at the wrong sections of Claim 1 in trying to locate the species. Similarly, species (3) is specifically claimed in part (iv) of Claim 1, not in part (i) or (ii). Again, the Examiner is looking at the wrong sections of Claim 1 in trying to locate the species. Species (5) is indeed a compound where $n = 1$ and $m = 1$. Part (ii) of Claim 1 allows this possibility; it either fixes n at 1 or m at 1, but when n is fixed at 1, then m is not fixed and thus can be 0 or 1 and when m is fixed at 1, then n is not fixed and can be 0 or 1. Part (ii) requires that when n is 1, R_4 is alkyl, a requirement that compound (5) meets, and part (ii) requires that R_1 and R_2 are alkyl, which compound (5) meets as well. So, compound (5) is a species of part (ii) of Claim 1. Species (2) is a compound of part (i) of Claim 1 in which $n = m = 0$ and $R_1 = R_2 = R_3 = \text{CH}_3$. Species (4) is a species of part (i) of Claim 1 wherein $n = m = 0$, R_3 is H and R_1 and R_2 together form a cyclohexyl ring. Thus, all of species (1), (2), (3), (4) and (5) fall within the scope of Claim 1 and Claim 4 is in fact a proper dependent claim.

The Examiner also considers Claim 23 to be an improper dependent claim. Again, applicant submits that the Examiner is mistaken. It is true that compound (1) is not within the scope of part (i) or (ii) of Claim 1. However, compound (1) is specifically claimed in part (iii) of Claim 1 and therefore Claim 23 is a proper dependent claim because it limits Claim 1 to part (iii). It was not intended to be and is not encompassed by the other parts of Claim 1. As noted previously, parts (i), (ii), (iii) and (iv) are mutually exclusive. Further, this compound is disclosed in the application as originally filed, as pointed out above, and not contrary to the original provisos.

Rejection Under 35 U.S.C. § 112, first paragraph

Claims 1, 4 and 23 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner believes that deletion of the original proviso (i) that when $n = 1$ and R_4 is hydrogen, then m is equal to 0 broadens the scope of the claims. Applicant submits that such is not the case. Any compound which would be excluded by the proviso is outside the scope of Claim 1. This is easier to see in applicant's proposed rewording of Claim 1. As before, only a compound of part (i), (ii), (iii) or (iv) is encompassed by Claim 1. Now, however, all structural variables are defined in each part. Part (i) excludes the compounds of the proviso because n cannot be 1. Part (ii) excludes the compounds of the proviso because R_4 cannot be hydrogen. Part (iii) excludes the compounds forbidden by the proviso, because it is in compliance with the requirements of the original proviso, i.e. $n = 1$, $R_4 = \text{hydrogen}$ and $m = 0$ in compound (1); therefore, there is no need to separately state the proviso. Part (iv) excludes the compounds excluded by the proviso; part (iv) claims only species (3), which is in compliance with the requirements of the original proviso ($n = 1$, $R_4 = \text{hydrogen}$, $m = 0$). And as already pointed out above, none of parts (i), (ii), (iii) and (iv) are contrary to the original second proviso,

which now does not need to be restated and is deleted by the proposed amendment. No part of Claim 1 allows $n + m = 2$ when R_1 and R_2 together form cycloalkyl.

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited. In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully requested to telephone the undersigned so that prosecution of the application may be expedited.

Respectfully submitted,

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